

REMARKS

In the Office Action mailed December 4, 2006, the Office Action rejected claims 1-32 under 35 U.S.C. § 103. Claims 1, 22, 31 and 32 have been amended.

Applicant respectfully responds to this Office Action.

I. Claims 1-9, 11, 22-29 and 31-32 Rejected Under 35 U.S.C. § 103(a)

The Office Action rejected claims 1-9, 11, 22-29 and 31-32 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,069,871 to Sharma (hereinafter, "Sharma") in view of U.S. Patent No. 6,026,301 to Satarasinghe (hereinafter, "Satarasinghe") further in view of U.S. Patent No. 5,737,704 to Jin (hereinafter, "Jin"). The Office Action appears to have mistakenly omitted claim 30 from this group of rejected claims because the Office Action presents arguments in support of the rejection of claim 30 that are similar to the arguments presented in connection with claims 1-9, 11, 22-29 and 31-32. As such, Applicant assumes that the Office Action meant to have rejected claims 1-9, 11 and 22-32 under 35 U.S.C. § 103(a). This rejection is respectfully traversed.

The M.P.E.P. states that

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure.

The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references.

M.P.E.P. § 2142.

Applicant respectfully submits that the claims at issue are patentably distinct from the cited references. The cited references do not teach or suggest all of the limitations in these claims.

Claim 1, as amended, recites:

[I]nitiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . an RTD that is less than an RTD threshold.

Support for these amendments may be found in Applicants' specification, page 18, lines 9-13.

The Office Action of December 4, 2006 (hereinafter, "Office Action") admits that "Sharma and Satarasinghe do not particularly show initiating handoff of at least one mobile station within the inner coverage area to a different frequency on the cell." Office Action, page 4. The Office Action refers to col. 2, lines 28-63 of Jin as teaching "initiating handoff of at least one mobile station." Id. However, Jin does not teach, suggest or disclose the claim elements as amended. Jin states:

In this method, a hard handoff between cells does not occur and only a soft handoff between cells occurs.

Four cases of hard handoffs are generated in the cell, two cases from F1 to F2, and the other two cases from F2 to F1.

Jin, col. 2, lines 46-49.

Regarding the first two cases of hard handoffs, Jin states:

In hard handoffs from F1 to F2, one case is that a call using F1 moves to a second region using only F2 from a third region using both F1 and F2, the other case is that a call moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1.

Jin, col. 2, lines 50-54.

The first two cases taught by Jin including a call using F1 that moves to a second region using only F2 from a third region using both F1 and F2 or a call that moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1 do not teach, suggest or disclose "initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot

signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Jin merely teaches that initiating the first two cases of hard handoffs from F1 to F2 includes moving from one region to another region.

Regarding the second two cases of hard handoffs, Jin states:

In hard handoffs from F2 to F1, one case is that a call using F2 moves to a first region using only F1 from a third region using both F1 and F2, the other case is that a call moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2.

Jin, col. 2, lines 55-59.

The second two cases of Jin including a call that uses F2 moves to a first region using only F1 from a third region using both F1 and F2 or a call that moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2 do not teach, suggest or disclose “initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Again, Jin merely teaches that initiating the second two cases of hard handoffs from F2 to F1 includes moving from one region to another region.

In view of the foregoing, Applicant respectfully submits that claim 1 is patentably distinct from Sharma, Satarasinghe and Jin, alone or in combination. Accordingly, Applicant respectfully requests that the rejection of claim 1 be withdrawn.

Claims 2-9 and 11 depend either directly or indirectly from claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 2-9 and 11 be withdrawn for at least the same reasons as those presented above in connection with claim 1 because Sharma, Satarasinghe and Jin, alone or in combination, do not teach, suggest or disclose all of the claim elements of claim 1.

Claim 22, as amended, recites:

[I]nitiating handoff of the wireless communications device if it meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said wireless communications device being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . an RTD that is less than an RTD threshold.

Support for these amendments may be found in Applicants' specification, page 18, lines 9-13.

The Office Action admits that "Sharma and Satarasinghe do not particularly show initiating handoff of the wireless communications device to the target frequency." Office Action, page 8. The Office Action refers to col. 2, lines 28-63 of Jin as teaching "initiating handoff of at least one mobile station." Id. However, Jin does not teach, suggest or disclose the claim elements as amended. Jin states:

In this method, a hard handoff between cells does not occur and only a soft handoff between cells occurs.

Four cases of hard handoffs are generated in the cell, two cases from F1 to F2, and the other two cases from F2 to F1.

Jin, col. 2, lines 46-49.

Regarding the first two cases of hard handoffs, Jin states:

In hard handoffs from F1 to F2, one case is that a call using F1 moves to a second region using only F2 from a third region using both F1 and F2, the other case is that a call moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1.

Jin, col. 2, lines 50-54.

The first two cases taught by Jin including a call using F1 that moves to a second region using only F2 from a third region using both F1 and F2 or a call that moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1 do not teach, suggest or disclose "initiating handoff of the wireless communications device if it meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said wireless communications device being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold." In the cited passage of Jin above, there is no teaching, suggestion or disclose of "initiating handoff of the wireless communications device if it meets a predetermined handoff criterion." Jin merely teaches that initiating the first two cases of hard handoffs from F1 to F2 includes moving from one region to another region.

Regarding the second two cases of hard handoffs, Jin states:

In hard handoffs from F2 to F1, one case is that a call using F2 moves to a first region using only F1 from a third region using both F1 and F2, the other case is that a call moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2.

Jin, col. 2, lines 55-59.

The second two cases of Jin including a call that uses F2 moves to a first region using only F1 from a third region using both F1 and F2 or a call that moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2 do not teach, suggest or disclose “initiating handoff of the wireless communications device if it meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said wireless communications device being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclosure of “initiating handoff of the wireless communications device if it meets a predetermined handoff criterion.” Again, Jin merely teaches that initiating the second two cases of hard handoffs from F2 to F1 includes moving from one region to another region.

In view of the foregoing, Applicant respectfully submits that claim 22 is patentably distinct from Sharma, Satarasinghe and Jin, alone or in combination. Accordingly, Applicant respectfully requests that the rejection of claim 22 be withdrawn.

Claims 23-30 depend either directly or indirectly from claim 22. Accordingly, Applicant respectfully requests that the rejection of claims 23-30 be withdrawn for at least the same reasons as those presented above in connection with claim 22 because Sharma, Satarasinghe and Jin, alone or in combination, do not teach, suggest or disclose all of the claim elements of claim 22.

Claim 31, as amended, recites:

[I]nitiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . an RTD that is less than an RTD threshold.

Support for these amendments may be found in Applicants’ specification, page 18, lines 9-13.

The Office Action admits that “Sharma and Satarasinghe do not particularly show initiating handoff of at least one mobile station within the inner geographic region to a different frequency on the cell.” Office Action, page 14. The Office Action refers to col. 2, lines 28-63 of Jin as teaching “initiating handoff of at least one mobile station.” Id. However, Jin does not teach, suggest or disclose the claim elements as amended. Jin states:

In this method, a hard handoff between cells does not occur and only a soft handoff between cells occurs.

Four cases of hard handoffs are generated in the cell, two cases from F1 to F2, and the other two cases from F2 to F1.

Jin, col. 2, lines 46-49.

Regarding the first two cases of hard handoffs, Jin states:

In hard handoffs from F1 to F2, one case is that a call using F1 moves to a second region using only F2 from a third region using both F1 and F2, the other case is that a call moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1.

Jin, col. 2, lines 50-54.

The first two cases taught by Jin including a call using F1 that moves to a second region using only F2 from a third region using both F1 and F2 or a call that moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1 do not teach, suggest or disclose “initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Jin merely teaches that initiating the first two cases of hard handoffs from F1 to F2 includes moving from one region to another region.

Regarding the second two cases of hard handoffs, Jin states:

In hard handoffs from F2 to F1, one case is that a call using F2 moves to a first region using only F1 from a third region using both F1 and F2, the other case is that a call moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2.

Jin, col. 2, lines 55-59.

The second two cases of Jin including a call that uses F2 moves to a first region using only F1 from a third region using both F1 and F2 or a call that moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2 do not teach, suggest or disclose “initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Again, Jin merely teaches that initiating the second two cases of hard handoffs from F2 to F1 includes moving from one region to another region.

In view of the foregoing, Applicant respectfully submits that claim 31 is patentably distinct from Sharma, Satarasinghe and Jin, alone or in combination. Accordingly, Applicant respectfully requests that the rejection of claim 31 be withdrawn.

Claim 32, as amended, recites:

[I]nitiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . an RTD that is less than an RTD threshold.

Support for these amendments may be found in Applicants’ specification, page 18, lines 9-13.

The Office Action admits that “Sharma and Satarasinghe do not particularly show initiating handoff of at least one mobile station within the inner coverage area to a different frequency on the cell.” Office Action, page 16. The Office Action refers to col. 2, lines 28-63 of Jin as teaching “initiating handoff of at least one mobile station.” Id. However, Jin does not teach, suggest or disclose the claim elements as amended. Jin states:

In this method, a hard handoff between cells does not occur and only a soft handoff between cells occurs.

Four cases of hard handoffs are generated in the cell, two cases from F1 to F2, and the other two cases from F2 to F1.

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Regarding the first two cases of hard handoffs, Jin states:

In hard handoffs from F1 to F2, one case is that a call using F1 moves to a second region using only F2 from a third region using both F1 and F2, the other case is that a call moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1.

Jin, col. 2, lines 50-54.

The first two cases taught by Jin including a call using F1 that moves to a second region using only F2 from a third region using both F1 and F2 or a call that moves to a second region using F2 via a third region using both F1 and F2 from a first region using only F1 do not teach, suggest or disclose “initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Jin merely teaches that initiating the first two cases of hard handoffs from F1 to F2 includes moving from one region to another region.

Regarding the second two cases of hard handoffs, Jin states:

In hard handoffs from F2 to F1, one case is that a call using F2 moves to a first region using only F1 from a third region using both F1 and F2, the other case is that a call moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2.

Jin, col. 2, lines 55-59.

The second two cases of Jin including a call that uses F2 moves to a first region using only F1 from a third region using both F1 and F2 or a call that moves to a first region using only F1 via a third region using both F1 and F2 from a second region using only F2 do not teach, suggest or disclose “initiating handoff of at least one mobile station that meets a predetermined handoff criterion . . . wherein said predetermined handoff criterion comprises said at least one mobile station being serviced by a frequency with a predetermined status value . . . a single pilot signal in an active set . . . and . . . and RTD that is less than an RTD threshold.” In the cited passage of Jin above, there is no teaching, suggestion or disclose of “initiating handoff of at least one mobile station that meets a predetermined handoff criterion.” Again, Jin merely teaches that

initiating the second two cases of hard handoffs from F2 to F1 includes moving from one region to another region.

In view of the foregoing, Applicant respectfully submits that claim 32 is patentably distinct from Sharma, Satarasinghe and Jin, alone or in combination. Accordingly, Applicant respectfully requests that the rejection of claim 32 be withdrawn.

II. Claims 12-21 Rejected under 35 U.S.C. § 103

The Office Action rejected claims 12-21 under 35 U.S.C. § 103(a) as being unpatentable over Sharma, Satarasinghe and Jin, further in view of U.S. Patent No. 5,826,190 to Krutz. (hereinafter, “Krutz”). This rejection is respectfully traversed. The standard to establish a *prima facie* case of obviousness is provided above. (See M.P.E.P. § 2142.)

Claims 12-21 depend indirectly from claim 1. Accordingly, Applicant respectfully requests that the rejection of claims 12-21 be withdrawn for at least the same reasons as those presented above in connection with claim 1 because Sharma, Satarasinghe, Jin and Krutz, alone or in combination, do not teach, suggest or disclose all of the claim elements of claim 1.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicant respectfully submits that all of the pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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